

REMARKS

We have added dependent claims 37 and 38. After entering the amendments identified herein, claims 1-35, 37, and 38 will be pending in the application.

We acknowledge the examiner's indication that claims 3, 4, 6-9, 15-22, and 24-25 are allowable, and that claims 28-35 are allowed.

The examiner rejected claims 1, 2, 5, 10-14, 23, and 27 under 35 U.S.C. §102(e) as being anticipated by Noda (U.S. Patent No. 6,738,551). However, the structures disclosed by Noda are very different from the structures of the claims.

Claim 1 recites:

[a] guided-wave structure including a dielectric core and a cladding covering the dielectric core; and an array of dielectric-filled, guided-wave cavities in the cladding extending transversely from the dielectric core and forming an array of apertures through which optical energy that is introduced to the core exits from the core...

The examiner equates the air layers of Noda (col. 7, lines 11-15) with the cladding that covers the dielectric core, and equates the point defects 14 and holes 16 of Noda with the guided-wave cavities recited in the claim. We note, however, that neither the defects nor the holes are in the cladding, as required by claim 1. Fig. 1 of Noda clearly shows that the point defects 14 and holes 16 are in the slab 11 of photonic crystal, which is surrounded by air.

Point defects 14 and holes 16 also do not extend transversely from the core, as further required by claim 1. The core is the region in which the one or more guided wave modes are excited. The corresponding structure in Noda's device is the line defect 12 formed in slab 11. None of the point defects 14 or holes 16 extend transversely from that region. The point defects 14 and holes 16 are clearly in and coplanar with slab 11.

Similar arguments hold for claim 27, which recites first and second dielectric claddings with guided-wave cavities in the first dielectric cladding. As discussed above, Noda does not disclose an array of guided-wave cavities in a cladding, as required by the claim. The point

defects 14 and holes 16 disclosed by Noda also do not extend transversely from a core, as required by the claim, but rather are coplanar with a slab.

For at least the reasons given above, Noda does not anticipate claim 1 and claim 27, and claims dependent thereon.

In view of the above amendment, applicant believes the pending application is in condition for allowance. No fees are believed to be due at this time. However, please charge any fees, or credit any overpayments, to Deposit Account No. 08-0219.

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Respectfully submitted,

By 
Eric L. Prahl

Registration No.: 32,590
WILMER CUTLER PICKERING HALE AND
DORR LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000
Attorney for Applicant